Neutrino Projects at LBNL and Physics Topics

The goal of this chart is to provide an overview of the physics topics addressed by the existing and possible future neutrino program at LBNL. The arrow indicates some time-ordering of the projects based on the time of expected first physics results.

Physics	Topics	Existing Projects					ure Project	ts						_
		SNO	KamLAND	Amanda/Ice3	Cuorecino MICE	Kan	LAND Solar	Reactor	Cuore	LowE Solar	Other Onubb	Ice3	JHF/NUMI	AFRD
I. Neutrinos from the Universe	High Energy Neutrino Sources													
	Supernovae													
	Solar Astrophysics													
	Solar Neutrinos													
	Relic Neutrinos													
II. Mechanism of Flavor Transformation	Neutrino Flavor Change													
	MSW Effect								_					_
	Neutrino Oscillations													
	Sterile Neutrinos													
III. Neutrino Mixing & Mass Matrix	theta12													
	deltam^2 (solar)								_					
	theta13													
	CP Violation in Neutrino Sector													
	theta23													
	deltam^2 (atm)													
	Absolute Mass Scale													
IV. Particle Nature of Neutrinos	Majorana or Dirac													
V. Geophysics	geo neutrinos													
VI. Developments for Future Accelerators	Muon Storage Techniques													
Facilities	NUSL													
	Low-E Background Techniques													

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